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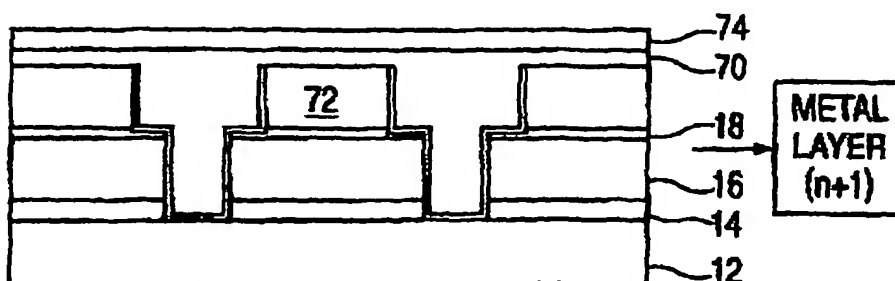
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(54) Title: GAS LAYER FORMATION MATERIALS



(57) Abstract: The present invention provides gas layer formation material selected from the group consisting of acenaphthylene homopolymers; acenaphthylene copolymers; poly(arylene ether); polyamide; B-staged multifunctional acrylate/methacrylate; crosslinked styrene divinyl benzene polymers; and copolymers of styrene and

divinyl benzene with maleimide or bis-maleimides. The formed gas layers (72) are used in microchips and multichip modules.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/34816

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01B 3/30; H01L 21/47, 21/4763  
US CL : 252/571, 573; 438/619, 623, 780, 781

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 252/571, 573; 438/619, 623, 780, 781

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	WO 00/51177 A1 (WERNER et al) 31 August 2000 (31.08.2000), Figures 2-4, 8, 10; page 3, line 15 - page 5, line 19; page 8, lines 1-4.	1, 2, 5-11, 14, 15, 18-26 ----- 4, 13, 17
X	US 6,093,636 A (CARTER et al) 25 July 2000 (25.07.2000), Figures 1-8; column 3, line 22 - column 4, line 8; column 19, line 13 - column 21, line 20.	1, 2, 6, 8-11, 15, 20, 21
X	US 2002/0028575 A1 (BESLING et al) 07 March 2002 (07.03.2002), Figure 7; paragraphs [0026]-[0032].	1-2, 6-11, 15, 20, 21
X,P	US 2003/0151031 A1 (LI et al) 14 August 2003 (14.08.2003), paragraphs [0111], [0136], [0145]-[0164].	1-4, 6, 8-13, 15-17, 19-21
Y	US 2002/0052125 A1 (SHAFFER, II et al) 02 May 2002 (02.05.2002), paragraphs [0025]-[0026].	4, 13, 17



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:		"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

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# INTERNATIONAL SEARCH REPORT

PCT/US03/34816

## Continuation of B. FIELDS SEARCHED Item 3:

USPAT; US PG PUBS; Derwent; EPO; JPO; IBM TDB; Science Direct; INSPEC; IEEE

search terms: Gas Dielectric, Porous Insulator, Acenaphthylene, Polyarylene Ether, Thermally Degradable